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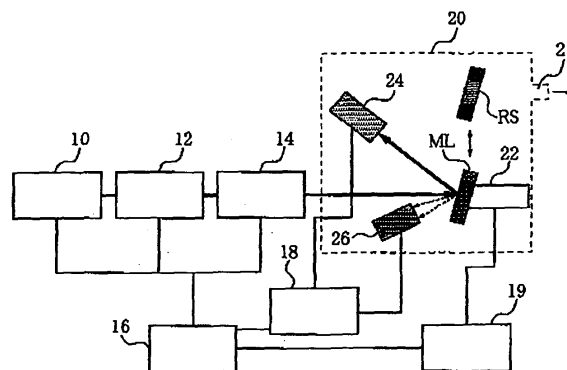
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(54) **Assembly and adjusting method of optical system, exposure apparatus having the optical system**

(57) An adjusting method of an optical system composed plural optical elements each having a multilayer film, the adjusting method characterized in that includes a first measuring step that obtains, for each optical element, a difference between a phase distribution of which an EUV light (Extreme Ultraviolet light) is reflected from the optical element and a phase distribution of which a light with a wavelength that is longer than the EUV light is reflected from the optical element, a second measuring step that measures a phase distribution of which the light passes the optical system, a deciding step that decides a phase distribution of which the EUV light passes through the optical system based on the phase distribution difference obtained by the first measuring step and the phase distribution measured by the second measuring step, and an adjusting step that adjusts at least one of a position and a posture of the optical element based on the phase distribution decided by the deciding step.



**FIG. 1**



European Patent  
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# EUROPEAN SEARCH REPORT

Application Number  
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The present search report has been drawn up for all claims			G03F G21K G02B G03B G01M
Place of search		Date of completion of the search	Examiner
Munich		30 November 2006	Weckesser, Jens
<p>CATEGORY OF CITED DOCUMENTS</p> <p>X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document</p> <p>T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons &amp; : member of the same patent family, corresponding document</p>			

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**ANNEX TO THE EUROPEAN SEARCH REPORT  
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This annex lists the patent family members relating to the patent documents cited in the above-mentioned European search report.  
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